Paper No. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte GERALD S. GEORGE
and MICHAEL M. LUQUETTE

_____

Appeal No. 98-2352
Application 08/245,870[1]

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ON BRIEF

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Before FRANKFORT, STAAB and BAHR, Administrative Patent Judges.

FRANKFORT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 through 18 and 20 through 25, which are all of the claims remaining in the application. Claim 19 has been canceled.

[1] Application for patent filed May 19, 1994.

Appellants' invention relates to an exercise machine that is specially designed for exercising the lower back muscles of a user. As noted on page 2 of the specification, it is appellants' intention to provide an exercise machine that properly isolates the lower back so as to primarily exercise the spinae erector muscle group of the lower back in an isotonic manner.

Claims 1, 10 and 18 are representative of the subject matter on appeal and a copy of those claims, as reproduced from Appendix A of appellants' brief, is attached to this decision.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Smidt et al. (Smidt)	4,462,252	Jul. 31, 1984
Rockwell	4,623,144	Nov. 18, 1986
Sammaratano	4,753,126	Jun. 28, 1988
Marras et al. (Marras)	5,094,249	Mar. 10, 1992
Boren	5,269,738	Dec. 14, 1993

Claims 1 through 8, 10 through 16, 18 and 20 through 24 stand rejected under 35 U.S.C. §102(b) as anticipated by, or in the alternative under 35 U.S.C. §103 as obvious over, Rockwell.

Claims 9, 17 and 25 stand rejected under 35 U.S.C. §103 as being unpatentable over Rockwell in view of Sammaratano.

Claims 1 through 3, 6 and 7 stand rejected under 35 U.S.C. §102(b) as anticipated by, or in the alternative under 35 U.S.C. §103 as obvious over, Smidt.

Claim 4 stands rejected under 35 U.S.C. §103 as being unpatentable over Smidt as applied to claim 1 above, and further in view of Marras.

Claim 8 stands rejected under 35 U.S.C. §103 as being unpatentable over Smidt as applied to claim 1 above, and further in view of Boren.

Claim 9 stands rejected under 35 U.S.C. §103 as being unpatentable over Smidt as applied to claim 1 above, and further in view of Sammaratano.

The examiner's full statement of the rejections and response to appellants' arguments appears in the examiner's answer (Paper No. 16, mailed

December 27, 1996). Appellants' conflicting viewpoints concerning the examiner's rejections of the appealed claims are found in the corrected brief (Paper No. 15, filed September 23, 1996).

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In arriving at our decision in this appeal, we have carefully considered appellants' specification and claims, the applied references, and the respective viewpoints of appellants and the examiner. As a consequence of our review, we have made the determinations which follow.

Turning first to the examiner's rejection of claims 1 through 8, 10 through 16, 18 and 20 through 24 under 35 U.S.C. §102(b) as anticipated by, or in the alternative under 35 U.S.C. §103 as obvious over, Rockwell, we note that it is the examiner's position that Rockwell discloses

> "an exercise apparatus, Fig. 1, comprising a frame 10 including a backrest 53 having an upper portion (*means mounted to the frame for resisting forward movement of the user's hips to direct the user's gluteus maximus muscles to a relaxed condition; movement resisting member mounted to the frame for contact with the pelvic girdle region of a user kneeling on the apparatus; movement resisting member mounted to the frame and disposed for engagement by the front of the*

pelvic girdle area of a user to block substantial forward movement of the user and to eliminate loading of the user's hamstring muscles and gluteus maximus muscles; and means for blocking the pelvic girdle) and a lower portion (*means mounted to the frame in a disposition for engagement by the front portions of the user's above and adjacent the knees of the user to facilitate stabilization of the user's legs*). Also connected to the frame 10 is an adjustable seat 44 (*means mounted to the frame for maintaining the user's knees in a flexed condition for directing the user's hamstring muscles to a relaxed condition; means mounted to the frame for supporting the user in a kneeling position to direct the user's hamstring and gluteus maximus muscles to a relaxed condition with the support means oriented generally perpendicular to the means for blocking the pelvic girdle; and kneeling platform for supporting a user in a kneeling position mounted to the frame adjacent to means to block forward movement of the user's legs*).

A lever assembly 70 *(lever means pivotally mounted to the frame for movement about a pivot axis and disposed for engagement by the upper back of a user in a kneeling position for backward and forward user-induced movement*) is pivotally connected to the frame 10. The lever assembly 70 also includes a member 84 (*hand engageable means mounted to the lever means for pivoting with the lever means about the pivot axis*) which connects to a strap 90 for coupling to weights 52 (*resistance means operatively connected to the lever means*) providing resistance to back and forth movement of the lever assembly 70. The lever assembly 70 pivots about pivots 76 (*pivot axis*) located above the seat 44 and spaced a distance from the backrest 53 (*pivot axis adjacent the lumbar region of the user*).

The apparatus of Rockwell inherently possesses properties which anticipate or render obvious the claimed invention. A person may support him/herself on his knees by kneeling on the seat 44 with the front portions of his/her legs above and adjacent the knees engaging a lower portion of the backrest 53, the front of his/her pelvic girdle region engaging the upper portion of the backrest 53, his/her upper back engaging the roller 82, and his/her hands engaging the member 84.

While an element in a claim expressed as a means for performing a specified function must be construed as covering the corresponding

> structure described in the specification and equivalents thereof, there is no requirement that the prior art reference suggest that such element actually be intended to perform the recited function. In re Yanush, 477 F.2d 958, 177 USPQ 705 (CCPA 1973).

Appellants argue (brief, pages 10-13) that even if the examiner's proposed manner of using the Rockwell exercise apparatus were possible, the inclination of the Rockwell seating assembly (44, 53) would pitch the user to such a state of imbalance that the gluteus maximus muscles would not be relaxed and the hamstrings would not be directed to a relaxed condition, as is required in claims 1 and 10 on appeal, because all muscles would be tight in order to prevent the user from falling from the device. Appellants characterize the examiner's position set forth above as being a "fanciful interpretation" based on hindsight. With respect to the obviousness rejection based on Rockwell, appellants again urge that the seating arrangement of Rockwell cannot perform the functions required of the means plus function language of claims 1, 10 and 18 on appeal, and that there is no suggestion in Rockwell to assume a stance on the device like that posited by the examiner. As a further point, appellants have made the argument that

> "while the Examiner asserts that the cushion 82 would be at the upper back of a user if they kneeled on the platform 44 with the thighs against the cushion 53, such a result would only be achievable by a very strange shaped person. At best, the cushion 82 would be disposed

> somewhere adjacent the mid-back region and would require further leaning in a rearward direction to engage the cushion. Additionally, the pivot would be dangerously out of position and such imaginative misuse of the Rockwell device would likely result in injury. Such is not the substance of obviousness" (brief, page 12).

Each of the claims on appeal is directed to an apparatus for exercising the lower back muscles of a user (specifically, the muscles of the spinae erector group) and sets forth a lever means mounted to the frame in a disposition for engagement with the upper back of a user for backward and forward user-induced movement of the lever means for exercise of the user's lower back muscles. As has been emphasized in the specification, it is important to appellants that the user be positioned on the apparatus such that the muscles of the lower back of the user can be exercised in isolation and with the user's gluteus maximus and hamstrings in a relaxed condition. To this end, the apparatus includes means mounted to the frame for resisting forward movement of the user's hips to direct the user's gluteus maximus muscles to a relaxed condition and means mounted to the frame for maintaining the user's knees in a flexed or bent condition for directing the user's hamstring muscles to a relaxed condition while the lower back muscles undergo conditioning exercise.

Like appellants, it is our opinion that even if a user were to use the exercise device of Rockwell by kneeling on the seat (44) with the knees and hips of the user positioned against the back rest (53), as is urged by the examiner (answer, page 6), the Rockwell seating assembly (as seen in Figure 1 thereof) would pitch the user forwardly away from the roller lever member (82) to such an extent that the upper back of the user could not be brought into engagement with the roller member so as to exercise the lower back muscles in isolation and with the user's gluteus maximus muscles and hamstring muscles in a relaxed condition. In this regard, we note that the spine of a user positioned on the apparatus of Rockwell in the kneeling manner urged by the examiner would be essentially straight (i.e., aligned with the plane of the back rest 53) or possibly bent forward in the direction of the portion (84) of the lever assembly. However, in either of these positions, it would appear to us that the user would be precluded from performing any type of exercise of the isolated lower back muscles by attempting to bring his upper back into engagement with the spaced roller lever member (82) of Rockwell and then further moving the roller lever backwardly and forwardly against the resistance of the weight stack (52).

Thus, we must disagree with the examiner's position that the apparatus of Rockwell "inherently possesses properties which anticipate or render obvious the

claimed invention" (answer, page 6) and instead agree with appellants' position that the apparatus of Rockwell cannot perform the functions required of the means plus function language in claims 1, 10 and 18 on appeal. For that reason, we will not sustain the examiner's rejection of claims 1, 10 and 18 under 35 U.S.C. § 102(b)/103 based on Rockwell alone, or the rejection of dependent claims 2 through 8, 11 through 16 and 20 through 24 on the same basis.

Since we see nothing in Sammaratano which would supply that which we find lacking in Rockwell, it follows that the examiner's rejection of dependent claims 9, 17 and 25 under 35 U.S.C. § 103 relying on Rockwell and Sammaratano will also not be sustained.

The next rejection for our review is that of claims 1 through 3, 6 and 7 under 35 U.S.C. § 102(b)/103 based on Smidt. In this instance, after a careful review of the Smidt patent, it is our determination that the apparatus of Smidt is fully responsive to that set forth in claim 1 on appeal and does anticipate the claimed subject matter. In reading claim 1 on the apparatus of Smidt, the examiner has indicated that Smidt includes a frame (10); ASIS pads (90, 91) and thigh pad (70) which form means mounted to the frame for resisting forward movement of the user's hips to direct the

user's gluteus maximus muscles to a relaxed condition; a seat (41), knee pad (60) and foot restraint structure (49, 50, 51) forming means mounted to the frame for maintaining the user's knees in a flexed or bent condition for directing the user's hamstring muscles to a relaxed condition; a trunk pad lever assembly or lever means (Fig. 3); and a torque transducer (93) which provides resistance means operatively coupled to the trunk pad lever assembly for resisting user-induced movement of the lever assembly with a predetermined resistance force.

Appellants' arguments with regard to Smidt (brief, pages 13-14) are that 1) since Smidt discloses a user in a seated position with a completely isolated lower body, the Smidt device

> "cannot be said to simultaneously provide means for resisting forward movement at the user's hips to direct the user's gluteus maximus muscles to a relaxed condition and means for maintaining the user's knees in a flexed condition to direct the user's hamstring mu scl es to a rel ax ed co ndi tio

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and 2) since the Smidt device

> "does not disclose any form of kneeling and in fact is rife with teachings of seating and fixing the user in such a seated position, any association of the present invention with Smidt et al is only speculation and hindsight reconstruction which is improper."

We find both of these arguments to be unpersuasive. Treating the second argument first, we note that claim 1 on appeal does not in any way require kneeling of the user during use of the claimed apparatus for exercising the lower back muscles. Thus, the fact that Smidt does not teach or suggest kneeling is irrelevant. As for the first argument, we note that appellants have provided no reasoning as to why Smidt cannot or does not provide means and functions responsive to those set forth in the second clause of claim 1 on appeal. Our review of the Smidt device reveals that a user's legs would clearly be bent or flexed and fixed in that position so that the user's hamstring muscles would be in a relaxed condition, and that the seat (41) and pads (70, 90, 91) provide means for resisting forward movement of the user's hips to direct the user's gluteus maximus muscles to a relaxed condition. In

this regard, we note that it is emphasized in Smidt (col. 2, lines 26-34) that the device therein provides isolation of the muscle group involved in trunk flexion and extension and "permits immobilization of muscles below the axis of rotation of spinal flexion and extension." Note also column 11, line 31 *et seq*., of Smidt. In addition, we observe that anticipation by a prior art reference does not require either disclosure of the inventive concept of the claimed subject matter or the recognition of inherent properties that may be possessed by the prior art reference. See Verdegaal Bros, Inc. v. Union Oil of Calif., 814 F.2d 628, 633, 2 USPQ2d 1051, 1054 (Fed. Cir.), cert. denied, 484 U.S. 827 (1987). All that is required is that the claims on appeal "read on" something disclosed in the prior art reference, i.e., all limitations of the claims are found in the reference. See Kalman v. Kimberly Clark Corp., 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983), cert. denied, 465 U.S. 1026 (1984).

Based on the foregoing, the examiner's rejection of claim 1 under 35 U.S.C. § 102(b)/103 relying on Smidt is sustained. Since the examiner's rejections of dependent claims 2, 3, 6, 7 and 9 have not been separately argued by appellants, it follows that these claims will fall with claim 1.

With regard to the examiner's rejections of dependent claims 4 and 8 under 35 U.S.C. §103 based respectively on Smidt in view of Marras and Smidt in view of Boren, we must agree with appellants (brief, pages 15-16), that there is no reasonable teaching, suggestion or incentive in the applied references which would have led one of ordinary skill in the art to provide the already complete dynamometer device of Smidt with the pelvic stabilization belt structure (30) of Marras or the leg restraint device (60) of Boren. Moreover, unlike the examiner (answer, page 13), we see no basis to conclude that the belt structure of Marras and the leg restraint device in Boren are necessarily "art recognized equivalents" of the hip (90, 91), thigh (70) and leg restraint arrangements seen in Smidt or that such structures from Marras and Boren would necessarily provide the same degree of restraint of the user if substituted into the Smidt device. Thus, the examiner's rejections of claims 4 and 8 under 35 U.S.C. § 103 will not be sustained.

To summarize, we have not sustained the examiner's rejection of claims 1 through 8, 10 through 16, 18 and 20 through 24 under 35 U.S.C. §102(b) as anticipated by, or in the alternative under 35 U.S.C. §103 as obvious over, Rockwell, or the rejection of claims 9, 17 and 25 under 35 U.S.C. §103 as being unpatentable over Rockwell in view of Sammaratano. We have sustained the examiner's rejection of claims 1

through 3, 6 and 7 under 35 U.S.C. §102(b) as anticipated by, or in the alternative under 35 U.S.C. §103 as obvious over, Smidt and the rejection of claim 9 under 35 U.S.C. § 103 based on Smidt in view of Sammaratano. The examiner's rejections of claims 4 and 8 under 35 U.S.C.
§ 103 based respectively on Smidt in view of Marras and Smidt in view of Boren have not been sustained.

In accordance with the foregoing, the decision of the examiner is affirmed-in-part.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

CHARLES E. FRANKFORT Administrative Patent Judge	)	
	)	BOARD OF PATENT
LAWRENCE J. STAAB Administrative Patent Judge	)	APPEALS AND
	)	INTERFERENCES
JENNIFER D. BAHR Administrative Patent Judge	)	

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APPENDIX

1. An apparatus for exercising the lower back muscles of a user comprising:

a frame;

means mounted to said frame for resisting forward movement of the user's hips to direct the user's gluteus maximus muscles to a relaxed condition and means mounted to said frame for maintaining the user's knees in a flexed condition for directing the user's hamstring muscles to a relaxed condition;

lever means mounted to said frame in a disposition for engagement by the upper back of a user for backward and forward user-induced movement of said lever means for exercise with the user's lower back muscles in isolation and with the user's gluteus maximus and hamstring muscles in relaxed condition; and

resistance means operatively connected to said lever means for resisting said backward user-induced movement with a predetermined resistive force.

10. An apparatus for exercising the lower back muscles of a user comprising:

a frame;

means mounted to said frame for supporting the user in a kneeling position to direct the user's hamstring muscles to a relaxed condition and means mounted to said frame for blocking the user's pelvic girdle thereby eliminating hip joint movement and maintaining the user's gluteus maximus muscles in a relaxed condition, said means for supporting the user in a kneeling position being oriented generally perpendicularly to said means for blocking the user's pelvic girdle;

lever means mounted to said frame in a disposition for engagement by the upper back of a user when the user is supported in a kneeling position on said supporting means for backward and forward user-induced movement of said lever means for exercise of the user's lower back muscles; and

resistance means operatively connected to said lever means for resisting said backward user-induced exercise movement with a predetermined resistive force.

18. An apparatus for exercising the lower back muscles of a user comprising:

a frame;

a kneeling platform mounted to said frame for supporting a user in a kneeling position;

means mounted to said frame for preventing forward movement of the hip of a user kneeling on said platform;

lever means pivotally mounted to said frame for movement about a pivot axis and disposed for engagement by the upper back of a user in said kneeling position for backward and forward user-induced movement of said lever means for exercise of the user's lower back muscles; and

resistance means operatively connected to said lever means for resisting said backward user-induced movement with a predetermined resistive force.